

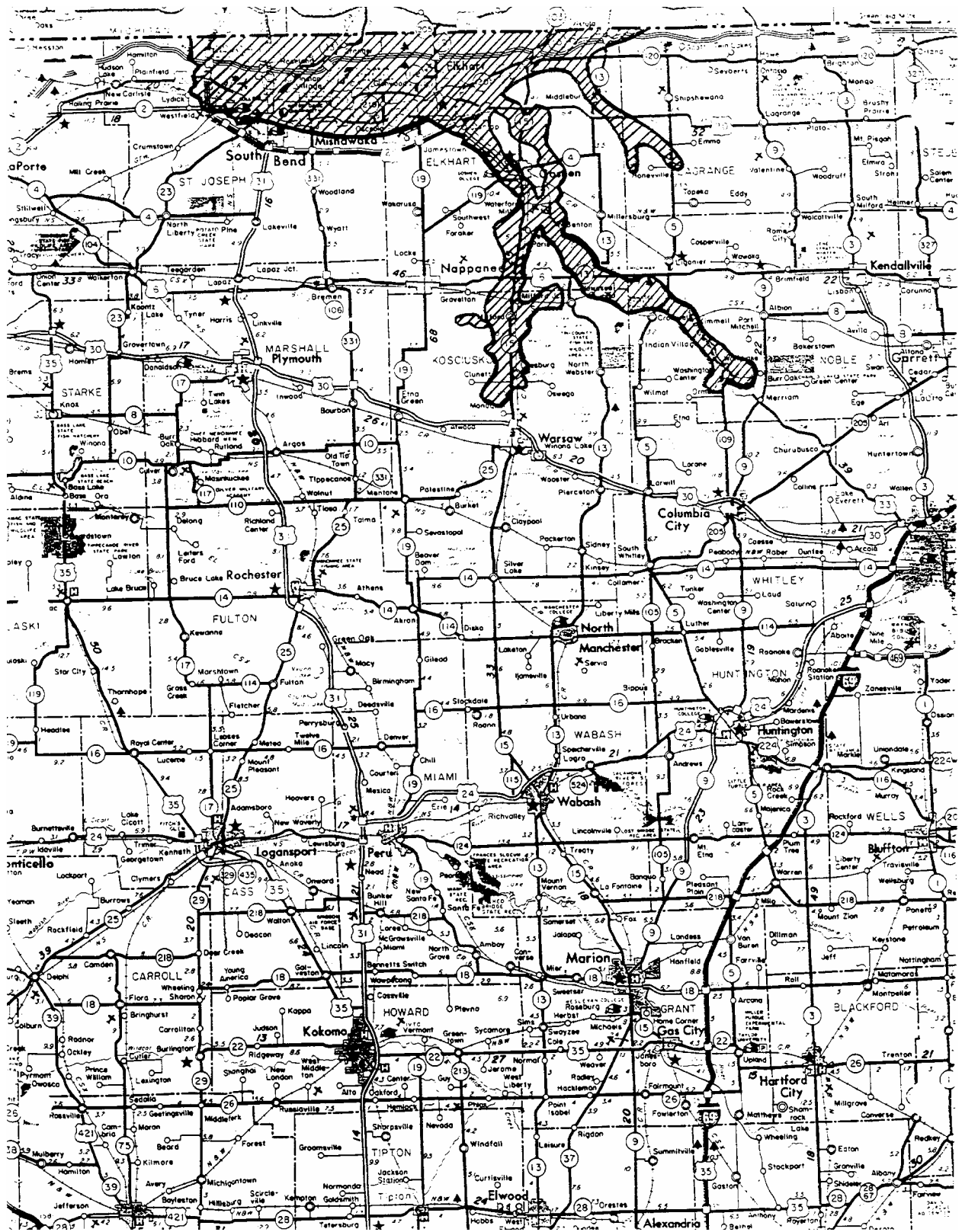
## Sole Source Aquifer

The term **aquifer** means a **geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring. A sole source aquifer refers to an area with one aquifer. That aquifer is the sole or principal drinking water source for the area and that, if contaminated, would create a significant hazard to public health.** Indiana's only sole source aquifer is mainly in St. Joseph and Elkhart Counties (see attached). A confined aquifer is one where a protecting clay layer severely retards surface water from migrating into and contaminating the ground water. An unconfined aquifer is open to contamination from the infiltration of surface water. In St. Joseph and Elkhart counties, most of the aquifer is unconfined and subject to contamination from a variety of activities.

There is a Memorandum between the Federal Highway Administration (FHWA), Region 5 and the U.S. Environmental Protection Agency (U.S. EPA), Region 5. It states that FHWA will not commit federal moneys to any project U.S. EPA determines may contaminate a sole source aquifer, creating a significant hazard to public health. The requirements of this agreement apply to any federally funded highway project that is wholly or partially within a sole source aquifer and to which one or more of the following criteria apply:

- (1) Construction of additional through traffic lanes or interchanges, on existing roadways.
- (2) Construction of a two or more lane highway on new alignment.
- (3) Construction of rest area or scenic overlooks with on site sewerage disposal facilities.
- (4) Any project involving a new or existing well (**see Injection Well Section**) within a designated sole source aquifer area.
- (5) Any other project that FHWA, in consultation with U.S. EPA, believes may have a potential to affect the designated aquifer through its recharge zone so as to create a significant hazard to public health.

When a project occurs in a sole source aquifer and meets any of the above criteria, INDOT must assure U.S. EPA that the project will not contaminate the aquifer. A *Sole Source Aquifer Screening* may be all that EPA requires to prove that a project does not have the potential to adversely affect a sole source aquifer. U.S. EPA must approve A *Detailed Ground Water Impact Assessment* when they determine that the project has the potential to adversely affect the quality of the groundwater. This usually occurs during the National Environmental Policy Act procedure. EPA may apply conditions to such projects to assure that no contamination of the sole source aquifer occurs. These conditions must be met.



**MEMORANDUM OF UNDERSTANDING**  
**Between FEDERAL HIGHWAY ADMINISTRATION, REGION 5**  
**and the**  
**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V**

This memorandum represents an agreement between the Regional Offices of the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA) concerning the review of projects for which Federal financial assistance is sought and that may affect a sole source aquifer (SSA) designated under Section 1424(e) of the Safe Drinking Water Act (P.L. 93-523). This memorandum serves two primary purposes: (1) to set forth the types of projects that will require review, and (2) to describe the notification and review procedure that will be employed.

Under section 1424(e), EPA has determined that the aquifer systems listed on Attachment 1 are the principal sources of drinking water for their residents. Notice of these determinations was published in 52 FR 32342, 8/27/87, 52 FR 37009, 10/2/87, 53 FR 15876, 5/4/88, 53 FR 23682, 6/23/88, and 53 FR 25670, 8/7/88.

**AGREEMENT**

FHWA agrees not to commit federal financial assistance to any project which EPA determines may contaminate as sole source aquifer through its recharge zone so as to create a significant hazard to public health.

**SOLE SOURCE AQUIFER DESIGNATION**

EPA will furnish the FHWA Regional Office with three copies of maps and descriptive text for all existing Section 1424(e) sole source aquifers in Region V. This information, and additional coordination with EPA as necessary, will permit FHWA and the State Highway Agency to determine whether or not a proposed project is within a sole source aquifer designated area.

**GOALS AND DEFINITIONS**

The goal of this memorandum is to ensure that projects in the designated area that receive Federal financial assistance are designed in a manner that will prevent the introduction of contaminants into the aquifer in quantities that may create a significant hazard to public health including, but not limited to, those contaminants listed in Attachment 2.

A significant hazard to public health could occur if the level of contaminants in an aquifer were to:

- (a) exceed any maximum contaminant level set forth in any promulgated National Primary Drinking Water Standard at any point where the water may be used for drinking purposes; or
- (b) exceed public health advisory levels for currently unregulated contaminants; or

- (c) otherwise threaten public health.

In determining whether a level of contaminant would threaten public health, the following factors at a minimum shall be considered:

- (1) the toxicity of the contaminants involved;
- (2) the volume of contaminants which may enter the aquifer; and
- (3) aquifer characteristics, i.e., geochemical, hydrological, geological, etc., and attenuation capability of the aquifer.

### APPLICATION

The requirements of this agreement apply to any Federal aid highway project determined to be wholly or in part within a sole source aquifer designated area and to which one or more of the following criteria apply:

- (1) Construction of additional through-traffic lanes or interchanges, on existing roadways.
- (2) Construction of a two or more lane highway on a new alignment.
- (3) Construction of rest areas or scenic overlooks with on-site sewerage disposal facilities.
- (4) Any project involving a new or existing well within a designated sole source aquifer area.
- (5) Any other project that FHWA, in consultation with EPA, believes may have a potential to affect the designated aquifer through its recharge zone so as to create a significant hazard to public health. Under this criterion, FHWA will be guided by material included as Attachment 3.

### EXEMPT PROJECTS

EPA will not review projects classified as categorical exclusions under 23 CFR 771.117 unless specifically requested to do so.

### REVIEW PROCEDURE

For any project in a SSA designated area requiring preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) under NEPA, FHWA and EPA will coordinate at the earliest possible time so that information necessary to make a ground water impact assessment (GWIA) can be acquired, and so that EPA's 1424 (e) comments can be incorporated into the draft EIS. EPA agrees to provide FHWA a written determination for each project submitted.

FHWA agrees to provide a location map of the project relative to the designated area, and information described in Attachment 3.

EPA may determine that:

- 1) the project does not require further review;
- 2) a GWIA is necessary to determine the potential of the project to adversely affect the Aquifer, or;
- 3) the project has a significant potential to contaminate the Aquifer and requires modification to eliminate the potential before Federal funds can be committed.

EPA agrees to provide a preliminary determination with respect to project eligibility not later than 10 working days after receipt of this information. If EPA determines that a GWIA is necessary, it will so notify FHWA in writing. After notification in writing that a GWIA is necessary, FHWA agrees to provide information responding to the items listed in Attachment 4.

EPA agrees to provide a determination to FHWA with respect to the eligibility of a project for which a GWIA has been submitted no later than 30 calendar days after receipt of such submission.

EPA's determination of the eligibility of a project may be revised under the following conditions:

- (1) FHWA receives information (together with substantiating data) indicating adverse impacts from the project on a sole source aquifer. FHWA agrees to provide such information to EPA immediately. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of such additional information.
- (2) EPA receives a citizen's petition, with information not previously considered that indicates a potential to impact ground water, prior to FHWA approval of a project. EPA agrees to immediately notify (by telephone, confirmed in writing) FHWA of such a petition. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of the petition, or any additional information relevant thereto, whichever is later.
- (3) FHWA submits information to EPA demonstrating the modification of a project which had earlier been determined to be ineligible. EPA agrees to provide a final determination to FHWA no later than 30 days after receipt of the information.

Any of the above deadlines may be extended by mutual agreement of EPA and FHWA in writing for reasons which include, but are not limited by, the following: (a) additional review time is necessary; (b) additional information necessary to make a determination is necessary; (c) the public interest in a project requires a public hearing; and (d) the public interest justifies a delay in the final determination.

#### GENERAL ADMINISTRATIVE PROCEDURES

Materials furnished to EPA by FHWA under this Memorandum of Understanding shall be addressed to the attention of:

Environmental Review Branch, 5ME-14, U.S. Environmental Protection Agency, 230 South Dearborn, Chicago, Illinois 60604

The FHWA and EPA will each assign a representative to act as liaison. The liaison officers are:

FHWA Region 5 - Director, Office of Planning and Program Development, U.S. Department of Transportation, Federal Highway Administration, 182089 Dixie Highway, Homewood, IL 60430; (312) 799-6300 ext. 135 or FTS 370-9135

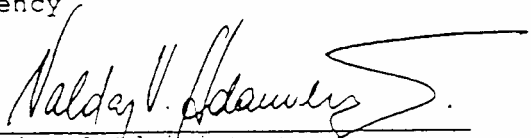
U.S. EPA Region V - Chief, Office of Ground Water, U.S. Environmental Protection Agency, 230 South Dearborn, Chicago, IL 60604; (312) 886-2504 or FTS 886-2504

Representatives will meet as needed to update this memorandum. This memorandum is subject to revision upon agreement of both parties. Either party may terminate this agreement upon giving six months notice to the other.

Federal Highway Administration

U.S. Environmental Protection Agency

  
Regional Administrator

  
Regional Administrator

Date: 4-21-89

Date: 4/18/89